

# VASCULAR PLANTS OF THE PACIFIC NORTHWEST

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*PART 1: VASCULAR CRYPTOGRAMS, GYMNOSPERMS,  
AND MONOCOTYLEDONS*

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## Epipactis Sw. Helleborine

Flowers several in a bracteate raceme; sepals subequal, the lower two spreading, the upper one and the two petals subequal, free but more or less connivent; lip saccate (but non-spurred) at the base and with the upper margins rounded distally, abruptly constricted to a triangular blade, declined at about a 45° angle, flattened distally but trough-like leading into the basal sac; column short, the stamen very shortly stipitate, attached on the upper side of the column near the tip, the pollinia 4; stigmatic surface large, concave-flattened, and often with tiny lobes around the margin, the side next to the lip with 2 short, thick, spur-like horns about midlength; terrestrial perennials with 1 to many leafy stems and a leafy-bracteate inflorescence.

Perhaps a dozen species in temperate areas, two in N. Am., the rest Eurasian. (Derivation not clear, but said to be from the Greek *epipaktis*, the ancient Greek name for hellebore.)

Besides the following species, *E. helleborine* (L.) Crantz, a rather weedy plant of Europe, sometimes escapes and becomes established, being reported for Victoria, Vancouver I., and for Lewis and Clark Co., Mont. It differs from *E. gigantea* in having smaller flowers (the sepals rarely as much as 12 mm. long) and a smaller, unlobed lip.

*Epipactis gigantea* Dougl. ex Hook. Fl. Bor. Am. 2:202, pl. 202. 1839.

*Limodorum giganteum* Kuntze, Rev. Gen. 2:672. 1891. *Peramium giganteum* Coult. Contr. U.S. Nat. Herb. 2:424. 1894. *Serapias gigantea* Eat. Proc. Biol. Soc. Wash. 21:67. 1908. *Helleborine gigantea* Druce, Bull. Torrey Club 36:547. 1909. *Amesia gigantea* Nels. & Macbr. Bot. Gaz. 56:472. 1913. (Douglas, "Hab. N.W. America. On the subalpine regions of the Blue and Rocky Mountains.")

Stems 1 to many from short rhizomes, mostly 3-7 (up to 12) dm. tall; leaves numerous, sheathing, the lowest blades almost lacking, but gradually enlarged upward, almost glabrous to scabridulous-puberulent, broadly elliptic-lanceolate, mostly 7-14 (19) cm. long and 1.5-5 (7) cm. broad; flowers 3-15, rather showy, the raceme usually secund, the bracts gradually reduced upward, but even the uppermost one usually exceeding the ovary; sepals coppery-green, lightly brownish-veined, 12-16 mm. long; petals similar to the sepals, but thinner, and (at least the venation) more brownish-purple; lip 15-20 mm. long, the sac with prominent, raised, purplish lines leading to the base, 3-lobed, the outer (basal) lobes prominent, porrect, the blade (central lobe) about as long as the basal lobes, curved downward somewhat, triangular-ovate, the tip flattened but with uprolled margins, greenish-yellow, the basal portion much thickened, yellow, the margins thickened and erect, with numerous linear callosities leading into the sac; column 6-9 mm. long; anther 4-5 mm. long; capsule reflexed, 2-3.5 cm. long. Giant helleborine.

Streambanks, lake margins, and around springs and seepage areas, especially near thermal waters, often in otherwise extremely desert regions; B.C. s. to Baja Calif., and in most of w. U.S. to the Rocky Mts. and s. to n. Mex.; rather infrequent in Wash., but on both sides of the Cascades. Apr. - July.

## Goodyera R. Br. Rattlesnake Plantain

Flowers small, several to many in an inconspicuously bracteate, usually somewhat secund, tight raceme, ours dull white to somewhat greenish, glandular-pubescent; upper sepal and the lateral petals connivent, forming a hood pointing well forward and covering the lip; lateral sepals free, not joined below the lip, a spur lacking; lip unlobed (ours), deeply saccate, the sides erect, the tip pointed and usually slightly reflexed; column itself rather short, but slenderly beaked by an elongate, 2-pronged, terminal rostellum, the stigmatic area nearly circular, almost basal; anther one, attached near the base of the column, broadly concave and subpetaloid, the 2 pollinia attached to a common narrow viscidium between the prongs of the rostellum; capsule erect; scapose, short-rhizomatous, glandular-hairy herbs with few to many alternate to basal and rosulate, usually more or less mottled leaves.

About 25 species, more or less cosmopolitan in the temperate to subarctic regions of the Northern Hemisphere, and into the tropics. (Named for the English botanist John Goodyer, 1592-1664.)

- 1 Hood less than 4 mm. long; lip deeply saccate; leaves neither white-mottled nor with white midrib; plants mostly less than 2 dm. tall G. REPENS
- 1 Hood at least 5 mm. long; lip not deeply saccate; leaves usually white-mottled or with white midrib; plants usually at least 2.5 dm. tall G. OBLONGIFOLIA